



& associates, inc.

Former GM Linden NJD 002186690

13

August 24, 2010
Mr. Gary Greulich
New Jersey Department of Environmental Protection
Northern Regional Office
7 Ridgedale Avenue
Cedar Knolls, NJ 07927

RE: Remedial Action Progress Report No. 4 for the Retail Redevelopment Area Portion of the Former General Motors Linden Assembly Plant, 1016 West Edgar Road, Linden, Union County, New Jersey 07036; DUK059.701.0017.

Dear Mr. Greulich:

On May 26, 2009, the New Jersey Department of Environmental Protection (NJDEP) approved the New Jersey Remedial Action Workplan and RCRA Corrective Measures Proposal Addendum No. 1 (RAWP) for the Retail Redevelopment Area of the Former GM Linden Assembly Plant (Site; SRP PI# 014755; EA ID# SUB090001; BFO File Number: 20-09-24). The May 26, 2009 approval letter requested a Remedial Action Progress Report for the Retail Redevelopment Area on/by November 30, 2009. Subsequent reports are submitted on a quarterly basis.

This letter constitutes Remedial Action Progress Report No. 4 for the Retail Redevelopment Area. Hull & Associates, Inc. (Hull) has prepared this report on behalf of Linden Development LLC (Linden Development) to summarize remedial activities completed on the Site between June 1 and August 31, 2010.

Requirements, according to N.J.A.C. 7:26E-6.6, are shown below in **bold italics**, with Hull/Linden Development's update following. The report certification required by N.J.A.C. 7:26E-1.5 is included in Attachment A.

1. NJDEP requires a description of each planned remedial action

- i. scheduled to be initiated or completed within the reporting period**
- ii. actually initiated or completed during the reporting period; and**
- iii. scheduled but not initiated or not completed during the reporting period, including the reasons for the noncompliance with the approved schedule.**

Soil

As outlined in the approved RAWP, the remedial activities for soils on the Retail Redevelopment Area include consist of the following:

- a. Establishing deed restrictions or environmental covenants to maintain commercial/industrial land use at the Site;
- b. Regrading the site to achieve the grade necessary to support the proposed redevelopment;



- c. Constructing building slabs, parking areas and roadways and placing one foot of clean soil over geotextile fabric in future greenspaces to preclude direct contact exposures to future receptor populations and/or provide cover to historical fill material; and
- d. Surveying to demonstrate that all areas are covered with engineering controls (e.g., building slabs, parking areas and roadways) or one foot of clean soil.

These remedial activities are directly related to construction activities associated with the future redevelopment at the Site which are dependent upon finalization of agreements with end users. Linden Development has been working throughout the reporting period to finalize agreements with several end users that will ultimately occupy various portions of the Site. Given that end user agreements have not been finalized, the construction activities described in the RAWP have not yet been initiated.

As part of the end user negotiations, Linden Development performed additional sampling during the due diligence period as part of internal due diligence requirements for two outside parties. Specifically, Lowe's requested additional soil gas sampling within the footprint of the proposed Lowe's building, and Wal-Mart requested additional soil and soil gas sampling within the footprint of the proposed Wal-Mart building.

The Lowe's-related soil gas sampling was conducted between June 18 and June 22, 2010. The results were consistent with those presented in the approved RAWP. A report summarizing the Lowe's-related sampling is being provided to NJDEP under separate cover concurrent with this quarterly report.

The Wal-Mart-related soil and soil gas sampling was conducted between July 16 and July 22, 2010. Laboratory analysis of the Wal-Mart-related samples was in process at the time of this writing. A report summarizing the results will be provided to NJDEP following receipt of analytical results during the next reporting period.

During the reporting period, Linden Development imported structural fill materials from off-site sources for use during the redevelopment consistent with the RAWP and the Revised Soil and Concrete Reuse Proposal (Revision 1.0) approved by NJDEP. Materials imported prior to and during the reporting period are summarized in Table 1.

Groundwater

As outlined in the approved RAWP, remedial actions related to groundwater underlying the Retail Redevelopment Area do not appear to be necessary. However, sporadic historical concentrations of lead in limited monitoring wells have exceeded groundwater quality criteria at the Site, as observed in previous groundwater sampling data. As a result, the NJDEP may consider that an indeterminate Classification Exception Area (CEA) is necessary due to these sporadic exceedances and the presence of historical fill at the Site.

Based on discussions with the NJDEP Case Manager on November 18, 2009, a final determination has not been made on the necessity of an indeterminate CEA. However, if ultimately required, the indeterminate CEA will be established by the Case Manager as part of finalizing the Site NFA and will include the overburden aquifer within the Site boundaries. As discussed on November 18, 2009, the Case Manager currently maintains the information

necessary to establish the indeterminate CEA (if ultimately deemed necessary) and no additional submittals by Linden Development are required.

Storm Sewer (AOI-18)

Remedial activities associated with AOI-18 are complete, as documented in Remedial Action Progress Report No. 1 (November 2009).

2. NJDEP requires discussion of problems and delays in the implementation of the RAWP, which should include proposals for corrections.

As discussed above, remedial activities are directly related to construction activities associated with the future redevelopment at the Site which are dependent upon finalization of agreements with end users. Given current economic conditions, the construction activities described in the RAWP will not be implemented until redevelopment deals with end users are finalized.

Linden Development is continuing to pursue finalization of agreements with several end users for the Retail Redevelopment Area. In the interim, conditions at the Site are stable given that GM's original cover types (asphalt, building pads, etc.) remain intact.

3. NJDEP requires proposals for a deviation from, or modification to, the approved RAWP.

No deviations from, or modifications to, the approved RAWP are planned or required at this time.

4. NJDEP requires submittal of a revised schedule pursuant to N.J.A.C. 7:26E-6.5, to reflect the changes as noted in 1 through 3 above.

As noted above, finalization of agreements with end users is the driving force behind the redevelopment of the Site and implementation of the RAWP. Linden Development currently anticipates finalizing agreements with selected end users in the near future such that redevelopment activities will commence on the Site during the summer/fall of 2010. An updated timeline for RAWP implementation will be included in the next progress report, scheduled to be submitted on or before November 30, 2010.

5. NJDEP requires an updated status of all permit applications relative to the critical path schedule.

The permits required for initiation of the remedial activities are summarized below.

Permit/Approval Type	Status	Notes
Planning Board Approval	Approved 1/9/09	Site plan approved by City of Linden Planning Board
NPDES Permit (Storm Water)	Approved 9/16/09	NPDES Permit No. 0088323
Soil Conservation District	Approved 9/16/09	Approved by Somerset-Union Conservation District

6. NJDEP requires a listing of each remedial action to be performed during the next reporting period.

No remedial activities are scheduled to be performed during the next reporting period. As noted above, finalization of agreements with end users is the driving force behind the redevelopment of the Site and implementation of the RAWP. Linden Development currently anticipates finalizing agreements with selected end users in the near future such that redevelopment activities will commence on the Site during late-2010 or early-2011. An updated timeline for RAWP implementation will be included in the next progress report, scheduled to be submitted on or before November 30, 2010.

7. NJDEP requires costs of each remedial action

- i. Annual summary of all remedial action costs incurred to date; and**
- ii. Revised cost estimate for remedial actions remaining to be performed.**

Given that significant construction and remedial implementation has not yet commenced, no remedial costs have been accrued, with the exception of minor costs for the storm sewer cleaning (i.e., approximately \$7,000) reported in Remedial Action Progress Report No. 1.

The cost estimate for completing remedial activities remains consistent with that presented in the RAWP (i.e., approximately \$7,500,000 for earthwork and construction of engineering controls).

8. NJDEP requires a tabulation of sampling results (according to N.J.A.C. 7:26E-3.13(c)3) received during the reporting period and a summary of the data and any conclusions, presented in a format consistent with N.J.A.C. 7:26E-4.8.

During the reporting period, Linden Development imported structural fill materials from off-site sources for use during the redevelopment consistent with the RAWP and the Revised Soil and Concrete Reuse Proposal (Revision 1.0) approved by NJDEP. Soil analytical results associated with the materials imported during this reporting period are tabulated in Attachment B.

As discussed previously, Linden Development conducted additional sampling on behalf of Lowe's and Wal-Mart as part of the respective due diligence requirements for those parties. The results of the Lowe's-related sampling are being provided to NJDEP concurrent with this quarterly report in a document entitled, "*Supplemental Soil Gas Investigation of the Proposed Lowe's Parcel*" dated August 10, 2010, prepared by Hull. The results of the Lowe's soil gas sampling are consistent with those provided in the soil gas evaluation presented in the approved RAWP.

Laboratory analysis of the Wal-Mart-related samples was in process at the time of this writing. A report summarizing the results will be provided to NJDEP following receipt of analytical results during the next reporting period.

9. NJDEP requires a summary of active groundwater remedial actions

- i. groundwater elevation maps with groundwater flow shown immediately before and during active groundwater remediation;**
- ii. graphs depicting changes in concentrations over time for all impacted wells as well as all down-gradient wells;**
- iii. summary of volume of water treated since last reporting period and the total volume treated since active remedial action commenced; and**
- iv. Summary of groundwater contamination, indicating either that contamination remains above applicable standards (include a proposal detailing additional remedial actions) or that concentrations are below applicable standards.**

As outlined in the approved RAWP, remedial actions related to groundwater underlying the Retail Redevelopment Area do not appear to be necessary (see discussion under item 1).

10. NJDEP requires a summary of natural remediation groundwater remedial actions

- i. Summary table of the groundwater monitoring results collected; and**
- ii. Conclusions whether data indicate that natural remediation is no longer appropriate (must then also submit a revised RAWP)**

As outlined in the approved RAWP, remedial actions related to groundwater underlying the Retail Redevelopment Area do not appear to be necessary (see discussion under item 1).

11. NJDEP requires a description of all wastes generated as a result of the remedial action

- i. Tabulation of waste characterization samples collected, including the physical state of the material, volume, number of samples, analyses performed and results;**
- ii. Listing of types and quantities of waste generated by the remedial action during the reporting period as well as to date;**
- iii. Name of the disposal facility used;**
- iv. Transporters' dates of disposal; and**
- v. Manifest numbers of each waste shipment.**

No wastes were generated during the reporting period.

12. NJDEP requires that any additional support documentation that is available also be provided (photos, etc.).

Given that the majority of the remedial activities have not yet been implemented, no additional support documentation is available.

Mr. Gary Greulich
August 24, 2010
DUK059.701.0017
Page 6

The next scheduled remedial action progress report will include remedial actions completed between August 31, 2010 and November 30, 2010. Please feel free to contact Bill Dennis at (412) 828-4988 with any questions regarding the update provided herein.

Sincerely,

A handwritten signature in black ink, appearing to read "Bill Dennis III". The signature is stylized with a large, looped "B" and "D".

Bill Dennis
Senior Project Manager

Attachments

ct: Gordon Adkison – Linden Development, LLC
Clifford Ng – U.S. EPA Region 2

TABLES

LINDEN DEVELOPMENT LLC SITE (FORMER GM LINDEN ASSEMBLY PLANT)
1016 WEST EDGAR ROAD, LINDEN, NJ
QUARTERLY REPORT NO. 4 - RETAIL REDEVELOPMENT AREA

TABLE 1
SUMMARY OF FILL MATERIALS IMPORTED AS OF AUGUST 2010

Import Date	Source	Supplier	Quantity	Material Type	Anticipated Site Use
Soils and Crushed Concrete - Imported Prior to Current Reporting Period					
Pre-February 2010	City of Rahway, NJ - Former firing range soil stockpile	City of Rahway, NJ	800 cy	Soils	Structural fill to be covered by engineering controls
Pre-February 2010	City of Linden, NJ - 2300 S. Wood Street - soil stockpile from City's Parks Dept.	City of Linden, NJ	2,865 cy	Soils	Structural fill to be covered by engineering controls
April / May 2010	New 121st. Police Precinct -970 Sanders Street, Staten Island, NY - excess soils from construction project	Pure Earth, Inc.	2,973 cy	Soils	Structural fill to be covered by engineering controls
April / May 2010	Newark Public Schools Stadium - excess soils from construction project	AWT Environmental Services, Inc.	3,397 cy	Soils	Structural fill to be covered by engineering controls
May 2010	Newark Brick Tower - Residential Tower Demolition - processed backfill material	DEMREX and Alchem Environmental	15,680 cy	Soils/Crushed Concrete	Structural fill to be covered by engineering controls
		Subtotal:	25,715 cy		
Soils and Crushed Concrete - Imported During Current Reporting Period					
June 2010	New 121st. Police Precinct -970 Sanders Street, Staten Island, NY - excess soils from construction project	Pure Earth, Inc.	1,178 cy	Soils	Structural fill to be covered by engineering controls
July 2010	New 121st. Police Precinct -970 Sanders Street, Staten Island, NY - excess soils from construction project	Pure Earth, Inc.	1,516 cy	Soils	Structural fill to be covered by engineering controls
June 2010	City of Linden, NJ - Library Site - excess soils from construction project	City of Linden, NJ	2,300 cy	Soils	Structural fill to be covered by engineering controls
		Subtotal:	4,994 cy		
	Total for Soils and Crushed Concrete Imported to Date:		30,709 cy		
Asphalt Millings - Imported Prior to Current Reporting Period					
Pre-February 2010	City of Linden, NJ - Residential Streets - asphalt millings	City of Linden, NJ	1,434 cy	Asphalt Millings	Subgrade material for future paved areas
		Subtotal:	1,434 cy		
Asphalt Millings - Imported During Current Reporting Period					
NA	None during current reporting period	NA	0		
		Subtotal:	0 cy		
	Total for Asphalt Millings Imported to Date:		1,434 cy		

ATTACHMENT A
Report Certification

Certification

**Linden Development, LLC
ISRA Case Number E20040531**

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of N.J.S.A. 13:1K-6 et seq., I am personally liable for the penalties set forth at N.J.S.A. 13:1K-13.

Linden Development, LLC

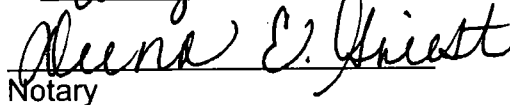
By:

Date: 8/18/10



William J. DeBoer, Executive V.P.

Sworn to and subscribed to before
me on this 18th day
of August, 2010


Notary



Deena E. Griest
Notary Public-State of Ohio
My Commission Expires
May 29, 2012

ATTACHMENT B

**Analytical Results for Samples of Fill Material
Imported During this Reporting Period**

New 121st Police Precinct - 970 Sanders Street, Staten Island, NY
Excess Soils from Construction Project
Table B-1 - Summary of Analytical Results (Detected Analytes Only)

Analyte	Units	Sample ID	TP-1C	TP-1G (4')	TP-2C	TP-2G (4')	TP-3C	TP-3G (4.5')	TP-4C	TP-4G (4.5')	TP-5C	TP-5G (5')	TP-7C	TP-7G (4.5')	TP-8C	TP-8G (4')	
		Sample Date	12/23/2009	12/23/2009	12/23/2009	12/23/2009	12/23/2009	12/23/2009	12/23/2009	12/23/2009	12/23/2009	12/23/2009	12/23/2009	12/23/2009	12/23/2009	12/23/2009	
		CasNo	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	
VOCs																	
Acetone	PPB	67-64-1	NT	95	C	NT	5.8	U	NT	5.5	U	NT	5.9	U	NT	5.7	U
Methylene chloride	PPB	75-09-2	NT	37	B	NT	29	B	NT	22	B	NT	38	B	NT	35	B
SVOCs																	
2-Methylnaphthalene	PPB	91-57-6	130	U	NT	260	U	NT	270	U	NT	130	U	NT	100	J	NT
Acenaphthene	PPB	83-32-9	130	U	NT	260	U	NT	270	U	NT	130	U	NT	540	NT	130
Acenaphthylene	PPB	208-96-8	130	U	NT	260	U	NT	270	U	NT	130	U	NT	22	J	NT
Anthracene	PPB	120-12-7	130	U	NT	50	J	NT	270	U	NT	130	U	NT	530	NT	130
Benzo(a)anthracene	PPB	56-55-3	18	J	NT	350	NT	NT	270	U	NT	130	U	NT	890	NT	130
Benzo(a)pyrene	PPB	50-32-8	19	J	NT	280	NT	NT	270	U	NT	130	U	NT	810	NT	130
Benzo(b)fluoranthene	PPB	205-99-2	130	U	NT	410	NT	NT	270	U	NT	130	U	NT	1100	NT	130
Benzo(g,h,i)perylene	PPB	191-24-2	130	U	NT	250	J	NT	270	U	NT	130	U	NT	540	NT	130
Benzo(k)fluoranthene	PPB	207-08-9	130	U	NT	110	J	NT	270	U	NT	130	U	NT	430	NT	130
Bis(2-ethylhexyl)phthalate	PPB	117-81-7	130	U	NT	120	J	NT	270	U	NT	130	U	NT	120	U	NT
Butyl benzyl phthalate	PPB	85-68-7	130	U	NT	260	U	NT	270	U	NT	130	U	NT	120	U	NT
Carbazole	PPB	86-74-8	130	U	NT	260	U	NT	270	U	NT	130	U	NT	220	NT	130
Chrysene	PPB	218-01-9	130	U	NT	280	NT	NT	270	U	NT	130	U	NT	830	NT	130
Dibenzo(a,h)anthracene	PPB	53-70-3	130	U	NT	260	U	NT	270	U	NT	130	U	NT	160	NT	130
Diethyl phthalate	PPB	84-66-2	130	U	NT	260	U	NT	270	U	NT	130	U	NT	120	U	NT
Di-n-butyl phthalate	PPB	84-74-2	130	U	NT	260	U	NT	270	U	NT	130	U	NT	120	U	NT
Fluoranthene	PPB	206-44-0	130	U	NT	500	NT	NT	270	U	NT	130	U	NT	2400	NT	130
Fluorene	PPB	86-73-7	130	U	NT	260	U	NT	270	U	NT	130	U	NT	480	NT	130
Indeno(1,2,3-c,d)pyrene	PPB	193-39-5	130	U	NT	260	NT	NT	270	U	NT	130	U	NT	670	NT	130
Naphthalene	PPB	91-20-3	130	U	NT	260	U	NT	270	U	NT	130	U	NT	210	NT	130
Phenanthrene	PPB	85-01-8	130	U	NT	190	J	NT	270	U	NT	130	U	NT	1900	NT	130
Pyrene	PPB	129-00-0	23	J	NT	450	NT	NT	270	U	NT	130	U	NT	1500	NT	130
Pesticides																	
4,4'-DDD	PPB	72-54-8	3	U	NT	5.2	NT	NT	2.2	J	NT	14	NT	2.2	U	NT	30
4,4'-DDE	PPB	72-55-9	2.1	U	NT	1.7	J	NT	2.3	U	NT	2.5	NT	2.2	U	NT	4.3
4,4'-DDT	PPB	50-29-3	2.1	U	NT	2.1	U	NT	2.3	U	NT	6.1	NT	2.2	U	NT	2.1
alpha-Chlordane	PPB	5103-71-9	2.1	U	NT	4.4	NT	NT	2.3	U	NT	2.2	U	NT	2.2	U	NT
gamma-Chlordane	PPB	5103-74-2	2.1	U	NT	0.89	J	NT	2.3	U	NT	2.2	U	NT	2.1	U	NT
Metals																	
Aluminum	PPM	7429-90-5	6840	NT	5710	NT	5560	NT	5490	NT	5900	NT	4830	NT	6390	NT	4610
Arsenic	PPM	7440-38-2	3.93	NT	3.27	NT	3.62	NT	2.63	NT	2.29	NT	3.54	NT	3.93	NT	2.35
Barium	PPM	7440-39-3	40.5	NT	31.3	NT	31.2	NT	23.9	NT	25.2	NT	20.4	NT	34.4	NT	21.9
Calcium	PPM	7440-70-2	5710	NT	19000	NT	3020	NT	1200	NT	5670	NT	5230	NT	4590	NT	247
Chromium	PPM	7440-47-3	15.2	NT	10.9	NT	18.2	NT	8.8	NT	9.34	NT	9.19	NT	9.64	NT	8.41
Cobalt	PPM	7440-48-4	0.428	U	0.43	U	0.808	NT	0.401	U	0.425	U	0.395	U	0.418	U	0.412
Copper	PPM	7440-50-8	12.6	NT	13.9	NT	11.9	NT	7.84	NT	6.36	NT	13	NT	7.94	NT	6
Iron	PPM	7439-89-6	15800	NT	12700	NT	13500	NT	11100	NT	13000	NT	12400	NT	12200	NT	9040
Lead	PPM	7439-92-1	13.2	NT	13.4	NT	33.2	NT	6.35	NT	5.53	NT	17.5	NT	8.55	NT	4.61
Magnesium	PPM	7439-95-4	4680	NT	9390	NT	2370	NT	1920	NT	4810	NT	3720	NT	1580	NT	1320
Manganese	PPM	7439-96-5	204	NT	174	NT	377	NT	113	NT	96.7	NT	113	NT	138	NT	124
Mercury	PPM	7439-97-6	0.0113	U	0.0189	NT	0.039	NT	0.0102	U	0.0111	U	0.0287	NT	0.0176	NT	0.0101
Nickel	PPM	7440-02-0	12.1	NT	10.4	NT	25.4	NT	11.5	NT	7.45	NT	11.8	NT	8.81	NT	7.25
Potassium	PPM	7440-09-7	1780	NT	1690	NT	1140	NT	1170	NT	1270	NT	1150	NT	1260	NT	972
Sodium	PPM	7440-23-5	265	NT	206	NT	232	NT	274	NT	224	NT	313	NT	679	NT	332
Vanadium	PPM	7440-62-2	22.9	NT	21.6	NT	18.8	NT	14.5	NT	16.4	NT	17.4	NT	18.1	NT	13.5
Zinc	PPM	7440-66-6	29.9	NT	31.4	NT	62.1	NT	24.7	NT	21.6	NT	30.6	NT	26	NT	20.8
Wet Chemistry																	
Chromium, Trivalent	PPM	16065-83-1	15.2	NT	10.9	NT	18.2	NT	8.8	NT	9.34	NT	9.19	NT	9.64	NT	8.41
Percent Moisture	w%		13.2	14.5	10.9	15.2	15.5	9.41	13.6	11.5	14.5	17	9.63	16	13.2	13.7	12.3
pH	pH Unit		7.95	H	8.09	H	7.92	H	7.98	H	7.86	H	8.35	NT	6.85	NT	7.68
TCLP Metals																	
Barium	PPM	7440-39-3	1.15	NT	0.964	NT	0.912	NT	0.83	NT	0.938	NT	0.941	NT	0.993	NT	0.842
Lead	PPM	7439-92-1	0.731	NT	0.0681	NT	0.12	NT	0.0329	J	0.00598	J	0.139	NT	0.056	NT	0.00826

Notes:
C - Calibration %RSD/%D exceeded for non-COC analytes
H - Holding times for preparation or analysis exceeded
NT - Not tested
U - Indicates that the compound was analyzed but not detected
B - Analyte detected in the associated in the method blank
J - Analyte detected below quantitation limits

Table B-1: Summary of Analytical Results (Detected Analytes Only)

[illegible]

Notes:
C - Calibration %RSD/%D exceeded for non-COC analytes
H - Holding times for preparation or analysis exceeded
NT - Not tested
U - Indicates that the compound was analyzed but not detected
B - Analyte detected in the associated in the method blank
J - Analyte detected below quantitation limits

City of Linden, NJ - Library Site
Excess Soil from Construction Project
Table B-2 - Summary of Analytical Results

Sample ID Sampling Date Sample Type	Site Specific Acceptance Criteria	STK-B-1 5/25/2010 Composite	STK-B-2 5/25/2010 Composite
PCBs (ppm)			
Aroclor (Total)	2	ND	0.054
Aroclor-1016	2	ND	ND
Aroclor-1221	2	ND	ND
Aroclor-1232	2	ND	ND
Aroclor-1242	2	ND	ND
Aroclor-1248	2	ND	ND
Aroclor-1254	2	ND	ND
Aroclor-1260	2	ND	ND
Aroclor-1262	2	ND	0.054
Aroclor-1268	2	ND	ND
1,1'-Biphenyl	NA	ND	ND
1,2,4,5-Tetrachlorobenzene	NA	ND	ND
2,4-Dinitrotoluene	4*	ND	ND
2,6-Dinitrotoluene	4*	ND	ND
2-Chloronaphthalene	NA	ND	ND
2-Methylnaphthalene	NA	ND	ND
2-Nitroaniline	NA	ND	ND
3,3'-Dichlorobenzidine	6*	ND	ND
3-Nitroaniline	NA	ND	ND
4-Bromophenyl-phenylether	NA	ND	ND
4-Chloroaniline	4,200*	ND	ND
4-Chlorophenyl-phenylether	NA	ND	ND
4-Nitroaniline	NA	ND	ND
Acenaphthene	100	0.44	0.14
Acenaphthylene	8.6	ND	ND
Acetophenone	NA	ND	ND
Anthracene	100	1.2	0.32
Atrazine	NA	ND	ND
Benzaldehyde	NA	ND	ND
Benzo[a]anthracene	120	4.1	0.68
Benzo[a]pyrene	71	3.7	0.55
Benzo[b]fluoranthene	50	5.3	0.93
Benzo[g,h,i]perylene	40	2.4	0.42
Benzo[k]fluoranthene	86	1.8	0.21
bis(2-Chloroethoxy)methane	NA	ND	ND
bis(2-Chloroethyl)ether	3*	ND	ND
bis(2-Chloroisopropyl)ether	10*	ND	ND
bis(2-Ethylhexyl)phthalate	100*	0.17	ND
Butylbenzylphthalate	100*	ND	ND
Caprolactam	NA	ND	ND
Carbazole	NA	0.54	0.13
Chrysene	120	4.3	0.64
Dibenzo[a,h]anthracene	13	0.85	0.16
Dibenzofuran	NA	0.21	0.087
Diethylphthalate	50*	ND	ND
Dimethylphthalate	100*	ND	ND
Di-n-butylphthalate	100*	ND	ND
Di-n-octylphthalate	100*	ND	ND
Fluoranthene	100	8.1	1.2
Fluorene	100	0.44	0.18
Hexachlorobenzene	2*	ND	ND
Hexachlorobutadiene	21*	ND	ND
Hexachlorocyclopentadiene	100*	ND	ND
Hexachloroethane	100*	ND	ND
Indeno[1,2,3-cd]pyrene	39	2.2	0.3
Isophorone	50*	ND	ND
Naphthalene	100	ND	ND
Nitrobenzene	10*	ND	ND
N-Nitroso-di-n-propylamine	0.66*	ND	ND
N-Nitrosodiphenylamine	100*	ND	ND
Phenanthrene	480	4.4	1.2
Pyrene	100	10	1.5
Total Semi Volatile TICs	NA	260 J	330 J

* = The lower of the NRDCSCC or IGW
NA = Not Applicable
ND = Not Detected

City of Linden, NJ - Library Site
Excess Soil from Construction Project
Table B-2 - Summary of Analytical Results

Sample ID Sampling Date Sample Type	Site Specific Acceptance Criteria	STK-B-1 5/25/2010 Composite	STK-B-2 5/25/2010 Composite
PP Metals (ppm)			
Antimony	353	ND	ND
Arsenic	178	4.2	4.5
Barium	17,400	90	93
Beryllium	16.2	1.6	1.7
Cadmium	51.4	ND	ND
Chromium	247	19	19
Copper	1,500	25	24
Lead	1,000	76	80
Nickel	1,170	21	19
Selenium	11.7	ND	ND
Silver	95	ND	ND
Thallium	1.8	ND	ND
Zinc	1,500	110	110
Mercury	0.85	ND	0.12
Pesticides (ppm)			
Aldrin	0.17*	ND	ND
Alpha-BHC	NA	ND	ND
beta-BHC	NA	ND	ND
Chlordane	NA#	0.26	0.28
delta-BHC	NA	ND	ND
Dieldrin	0.18*	ND	0.045
Endosulfan I	50*	ND	ND
Endosulfan II	50*	ND	ND
Endosulfan Sulfate	NA	ND	ND
Endrin	50*	ND	ND
Endrin Aldehyde	NA	ND	ND
Endrin Ketone	NA	ND	ND
gamma-BHC	2.2*	ND	ND
Heptachlor	0.65*	ND	ND
Heptachlor Epoxide	NA	ND	ND
Methoxychlor	50*	ND	ND
p,p'-DDD	12*	ND	ND
p,p'-DDE	9*	0.0058	0.0047
p,p'-DDT	9*	ND	ND
Toxaphene	0.2*	ND	ND
Cyanide	21,000*	ND	ND
Total Phenolics	50*	ND	ND

* = The lower of the NRDCSCC or IGW

ND = Not Detected

NA = Not Applicable

- A guidance value was published in the NJDEP Findings and Recommendations for the Remediation of Historic Pesticide Contamination March 1999

City of Linden, NJ - Library Site
Excess Soil from Construction Project
Table B-2 - Summary of Analytical Results

Sample ID Sample Date Sample Type	Site Specific Acceptance Criteria	STK-B-1 5/25/2010 Composite	STK-B-2 5/25/2010 Composite
Volatile Organic Compounds (ppm)			
1,1,1-Trichloroethane	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	ND	ND
1,1,2-Trichloroethane	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND
1,2,3-Trichlorobenzene	NA	ND	ND
1,2,4-Trichlorobenzene	100*	ND	ND
1,2-Dibromo-3-chloropropane	NA	ND	ND
1,2-Dibromoethane	NA	ND	ND
1,2-Dichlorobenzene	50*	ND	ND
1,2-Dichloroethane	ND	ND	ND
1,2-Dichloropropane	43*	ND	ND
1,3-Dichlorobenzene	100*	ND	ND
1,4-Dichlorobenzene	100*	ND	ND
1,4-Dioxane	NA	ND	ND
2-Butanone	50*	ND	ND
2-Hexanone	NA	ND	ND
4-Methyl-2-pentanone	50*	ND	ND
Acetone	100*	ND	ND
Benzene	1*	ND	ND
Bromochloromethane	NA	ND	ND
Bromodichloromethane	1*	ND	ND
Bromoform	1*	ND	ND
Bromomethane	1*	ND	ND
Carbon disulfide	NA	ND	ND
Carbon tetrachloride	1*	ND	ND
Chlorobenzene	ND	ND	ND
Chloroethane	ND	ND	ND
Chloroform	1*	ND	ND
Chloromethane	10*	ND	ND
cis-1,2-Dichloroethene	ND	ND	ND
cis-1,3-Dichloropropene	5*	ND	ND
Cyclohexane	NA	ND	ND
Dibromochloromethane	1*	ND	ND
Dichlorodifluoromethane	NA	ND	ND
Ethylbenzene	100*	ND	ND
Isopropylbenzene	NA	ND	ND
m&p-Xylenes	12*	ND	ND
Methyl Acetate	NA	ND	ND
Methylcyclohexane	NA	ND	ND
Methylene chloride	1*	ND	ND
Methyl-t-butyl ether	NA	ND	ND
o-Xylene	12*	ND	ND
Styrene	97*	ND	ND
Tetrachloroethene	ND	ND	ND
Toluene	500*	ND	ND
trans-1,2-Dichloroethene	ND	ND	ND
trans-1,3-Dichloropropene	1*	ND	ND
Trichloroethene	ND	ND	ND
Trichlorofluoromethane	NA	0.0056	0.0091
Vinyl chloride	ND	ND	ND
Xylenes (Total)	12*	ND	ND
Total Volatile TIC	NA	0.0032 J	ND

* = The lower of the NRDCSCC or IGW

ND = Not Detected

NA = Not Applicable